Tucson, Arizona Opening Session April 19, 1999

Remarks by Dr. Neal Lane Assistant to the President for Science and Technology [1,932 words]

Vice Minister Hui, Vice Minister Zhang, Minister Liu, Under Secretary Gonzalez, ladies and gentlemen good morning. It is a real pleasure to be with you today in sunny Arizona. After the gray weather we had in Washington last week, I feel as though I have flown into spring. And I can think of no better place in the United States to have our discussions.

Everywhere we look, we are reminded of the importance of managing our water resources well. Vice President Gore, through the U.S.-China Forum on Environment and Development, has taken a great interest in our efforts to increase cooperation on water management. I am pleased to bring you a message from him: Message from the Vice President of the United States.

[BEGIN MESSAGE FROM VICE PRESIDENT GORE] It is my pleasure to send this message to all of you as you gather in Tucson to work together on what is becoming an increasingly urgent problem the management of our precious and highly vulnerable water resources.

Water shapes our civilizations, supports our economies and sustains our families. Yet it is in short supply. No issue illustrates the difficulties of sustainable development more than water management. Our economic growth and the well being of the world's people are fundamentally linked to this limited natural resource. We must learn to use it carefully if we are to continue to prosper in the 21st century and beyond.

We can already see the tragic results of mismanagement in many places: Eighty percent of diseases in the developing world are caused by contaminated water. Water-related diseases kill one child every eight seconds. Water pollution has pushed 20 percent of the world's species of freshwater fish to the brink of extinction. If we continue to use our resources as we have, this problem will only get worse. The United Nations predicts that water shortages will touch 30 percent of the world's population in four dozen nations by 2025. The United States and China are not immune to these global problems. Water is

becoming increasingly scarce in both countries. We also share the challenge of uneven distribution of water resources.

The American West and the north of China are experiencing rapid population growth and expanding industrial development, and both regions are already suffering from water shortages. In both the U.S. and China, economic growth has resulted in competition among urban populations, industry, and farmers for clean water.

At the first meeting of the U.S.-China Forum on Environment and Development in March 1997, all four working groups identified water issues as being critically important. Their discussions have inspired us to look at these problems in new ways, and to bring together experts from both countries and from diverse fields to learn from each other. This workshop is exactly the type of activity Premier Zhu Rongji and I hoped the Forum would initiate. I know he will be as interested as I will be in the results of your discussions.

Finally, I would like to thank all of you who worked to make this workshop a reality, and who came to Arizona to share your knowledge and experience. Your work will yield direct benefits to both our nations. [End of VPOTUS Message]

The Vice President,s message underscores the importance of water to all life in China, the United States, and around the globe. History records how the path waysof the world,s great rivers shaped the growth of civilizations, and how recurring floods and droughts altered the course of nations. Current political boundaries, industrial pathways, and cultural practices have evolved around the availability of water. Perhaps because it is so crucial to human life, water also touches the human spirit. One eloquent example of this is found in these lines from the famous Tang Dynasty poet Li Bai, in his poem "Waterfall at Lu Shan":

"Viewed from afar, the waterfall drapes itself from the top of the mountain to the river at the bottom.

Flying downward for three thousand meters, It,s as if the Milky Way has fallen."

Or, in the original Chinese, something like this: "fay-ee lee-u jir shee-ah san chan chir yee shir yeen (he) luo jee-uo tee-en."

Growth in demand for water now threatens to exceed the world's supply of available clean freshwater. As our farms grow larger to feed an ever-increasing population, we draw more water from the rivers, causing some of them to run dry without ever reaching the ocean. As people mass in our cities, we increasingly deplete groundwater resources and mortgage the future of our children for today's prosperity.

Water our most basic necessity is becoming increasingly scarce. Approximately 75 percent of the earth,s surface is covered in water, but almost all of that is salt water in the oceans or locked in the polar ice caps. Of the water on the continents, far less than 1 percent is in streams or freshwater lakes and available for us to drink, to water our crops, and to grow our economies. It is this precious fraction of the world,s water that is especially vulnerable to being despoiled by waste from human populations. A friend shared with me an old Chinese proverb: "If we don,t change our direction, we,re likely to wind up where we are headed."

So, two years ago, during the first session of the U.S.-China Forum on Environment and Development hosted by Vice President Gore and Chinese Premier Li Peng, we chose a new path. Experts from our countries came together to study our common needs. We formed working groups to focus on:

· Protection of our natural environment,
· Clean and efficient production of energy,
· Applications of science to sustainable development, and
· Cooperation on commercial development and cutting-edge technologies.

It is no surprise that all four working groups identified the need to conserve and protect our water resources as a goal we should pursue together. Their vision has brought us here today. Since the United States and China determined our mutual interest in preserving water resources, we have encouraged development of cooperative water management projects at the scientist-to-scientist and institution-to-institution level, in government and non-government sectors. These projects cover more than 30 program areas, including pollution control, conservation, groundwater studies, flood management, marine resources, and pricing.

We are now prepared to take these cooperative activities a step further. This workshop will investigate issues that go beyond the concerns of single sectors such as agriculture, or those of government agencies or the business and scientific communities. In this workshop we will turn our attention to the political, legal, social, economic, and technical policies required to create a sustainable future of water resource management. I believe cooperative efforts in water resource management may offer us insights into other issues our two countries must face, and point to areas where working together can minimize our differences. Indeed, as we who are gathered here know, our long geological record shows us that water has a way of smoothing even the roughest of surfaces.

Despite the fact that we are many miles from Washington, and many more from Beijing, we are not oblivious to what is happening in our larger bilateral relationship. In fact, we would be doing our countries a disservice if we attempted to address the issue of water resource management in isolation, because this issue is intimately linked to so many others in our relationship. I will give just two examples here: U.S.-China trade relations and our two countries' interactions on global climate change. Expanded cooperation on water issues can have a tremendous influence on trade relations, and perhaps even ease some tensions:

At the opening of the second session of the Forum on Environment and Development on April 9, Premier Zhu Rongji reiterated his commitment to protecting China,s environment and, in particular, improving its water and land use management to avoid devastation like that caused by the floods of 1998. He expressed his eagerness to use American technologies to do this, noting that the $10 billion that China plans to spend every year on water conservation projects could even help reduce the trade deficit the U.S. has been consistently running with China.

The agricultural agreement signed during Premier Zhu Rongji,s visit gives us an unprecedented opportunity to explore how increasing wheat imports and targeting them to specific areas could reduce the strain on China,s water resources. This is true because each ton of wheat that China imports from the United States saves China 1,000 tons of water. Working together on water management issues can also influence the way we address the issue of global climate change, both in our bilateral exchanges and in multilateral settings like the

Kyoto Convention, and bring us closer together in our search for a solution.

Indeed, we suspect that the most serious consequences of climate change may be shifts in the regional and seasonal availability of water. Workshops like this one, and the activities we hope they will inspire, give us an opportunity to study the regions where we are both vulnerable to the effects of climate change. This understanding could move us forward in our efforts to mitigate these changes. It could also increase China,s participation in international efforts to limit the growth of greenhouse gas emissions, a step that is critical to the United States, ability to meet its Kyoto obligations.

As the Forum working groups correctly identified two years ago, both the United States and China have much to gain from working together on water issues. We have already seen some of the results of this cooperation. But the Forum also made it clear that we should not and cannot be content with letting our cooperative efforts fall into predictable patterns. I have no doubt there is a great deal that U.S. and Chinese engineers can learn from each other. But just think of how much more those same engineers could learn by talking to the agricultural specialists, government regulators, and water quality experts from both countries who are also gathered in this room. I see before me representatives from businesses, academic institutions, non-governmental organizations, more than ten U.S. Government agencies, and eight Chinese Government agencies.

We should not waste this opportunity to learn from each other. I want to challenge you all to examine the issues before you from one another,s perspective, to find out what questions we must answer about each other,s work to find lasting solutions. We will ultimately return to our own offices, but our paths need not part. We can continue working together on these problems. I hope this workshop is the first step in an ongoing collaborative effort. We must bring together the best minds in our governments, academic institutions, national laboratories, businesses, and non-governmental organizations to create and exchange solutions that will benefit the people of both our countries.

Your discussions over the next few days, and the reports of your breakout groups, will identify the priorities for action as we move down this path. If we are successful, this approach may well serve as an

example for managing the worldwide crisis in freshwater availability that darkens the dawn of the new millennium for many nations.

I would like to echo the Vice President,s thanks to everyone who made this event possible: the Ministry of Science and Technology; the Ministry of Water Resources; the U.S. interagency planning team, led by OSTP; Los Alamos National Lab; the Office of Senator Max Baucus of Montana, for organizing congressional support; and the Woodrow Wilson Center for International Scholars and all of you, who are so generously sharing your time and expertise. Thank you.